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Planting Seeds

Annual

2005

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Report Highlights:
The majority of planting seeds used in the Russian Federation continue to be "saved" seeds or seeds that farmers simply save from the previous year. The use of imported seeds is increasing, but only in the sectors in which vertical integration is common. After a period of uncertainty connected with the administrative reform of the Ministry of Agriculture, the Federal Service for Veterinary and Phytosanitary Surveillance assumed control of all seed testing and registration.

Includes PSD Changes: No
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Table of Contents

Production

The grain industry constitutes the largest share of the plant production industry, and therefore, grain seeds make up the main share of the planting seeds sector by volume. The majority of seeds used are “saved seeds” or seeds that farmers simply save from the previous year. These seeds are not improved in any way and this is one of the main reasons that weather continues to be the major factor in production and fluctuations in yields.

Table 1. Grain Crop Yields by Regions: Production in Metric Tons per Hectare of Planted Area

	1997	1998	1999	2000	2001	2002	2003	2004*
Russia, total	1.65	0.94	1.17	1.44	1.80	1.80	1.58	1.79
Central Federal District	1.73	1.27	1.08	1.56	1.91	2.06	1.90	1.99
N.-W. Federal District	1.21	0.95	0.73	1.30	1.37	1.21	1.35	1.76
Southern Federal District	1.92	1.34	1.88	2.08	2.54	2.70	1.93	2.89
- Krasnodar Kray	3.08	2.41	3.37	3.45	3.79	4.09	2.89	4.08
- Stavropol Kray	2.01	1.92	1.89	2.10	2.56	3.14	2.07	3.20
- Rostov oblast	1.54	1.21	1.43	1.63	2.27	2.34	1.51	2.70
- Volgograd oblast	1.42	0.45	0.66	1.17	1.64	1.56	1.45	1.87
Volga Valley Federal District	1.88	0.62	1.04	1.26	1.59	1.59	1.60	1.46
- Bashkortostan Republic	1.99	0.66	1.32	1.27	1.58	1.86	2.32	2.25
- Tatarstan Republic	3.51	1.15	1.62	2.13	3.23	3.19	3.15	2.51
- Orenburg oblast	1.37	0.33	0.99	1.00	0.99	1.01	0.95	0.79
- Samara oblast	1.86	0.45	1.11	1.25	1.56	1.50	1.42	1.13
- Saratov oblast	1.85	0.39	0.86	1.11	1.25	1.42	1.42	1.49
Ural Federal District	1.64	0.77	1.39	1.09	1.49	1.27	1.40	1.03
Siberian Federal District	1.05	0.96	0.90	1.26	1.56	1.31	1.13	1.32
- Altay Kray	0.58	0.89	0.73	1.29	1.31	1.28	0.95	1.05
- Krasnoyarsk Kray	1.80	1.39	1.24	1.61	1.91	1.62	1.81	2.07
- Novosibirsk oblast	1.26	0.95	0.99	1.53	1.88	1.41	1.05	1.34
- Omsk oblast	1.18	0.76	0.90	0.97	1.99	1.34	1.26	1.44
Far-Eastern Federal District	0.92	0.94	0.75	0.64	0.86	1.31	0.86	0.89

* Preliminary data.
Note: Total planted area is the sum of winter and spring planted area and includes any re-planted sown areas.
Source: State Statistical Committee of the Russian Federation

Seed Supply: Production and Trade by Commodities

There is no official data on planting seed production, availability, and distribution by type of seed and by region. Therefore, Post uses data from non-official sources, combined with State Customs trade data.

Table 2. Yields by Selected Crop, Metric Tons per Harvested Hectare

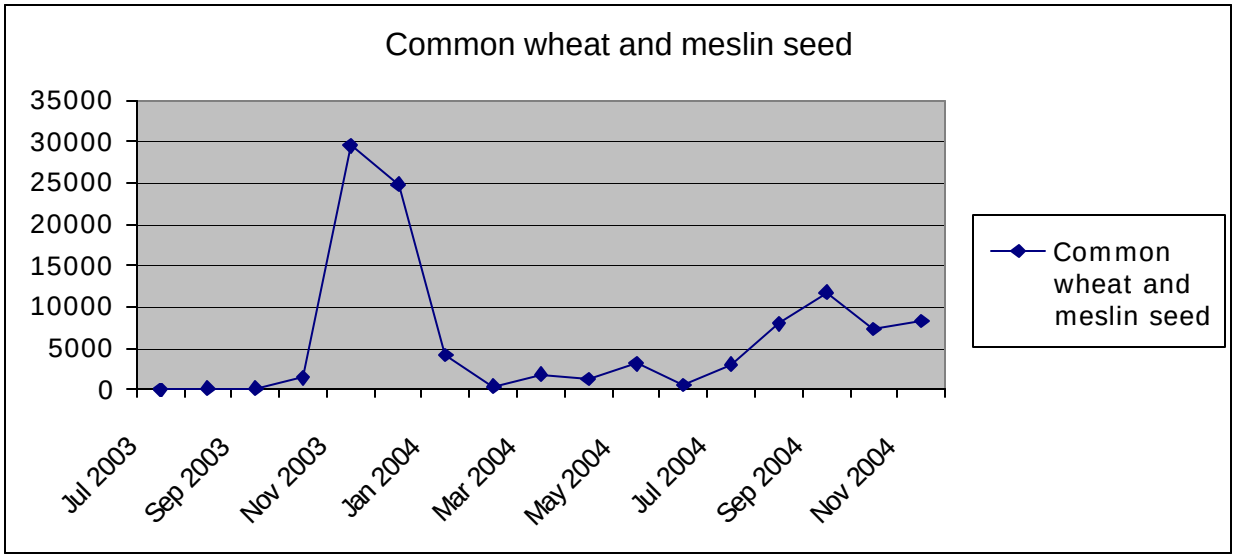
Crop	1991-1995 (avg.)	1996-2000 (avg.)	1997	1998	1999	2000	2001	2002	2003	2004
Wheat	1.61	1.59	1.84	1.35	1.57	1.61	2.06	2.07	1.78	1.88
Rye	1.56	1.50	1.92	1.02	1.47	1.58	1.88	1.90	1.86	1.54
Barley	1.55	1.55	1.76	1.38	1.43	1.67	2.01	1.97	1.96	1.80
Oats	1.24	1.36	1.61	1.18	1.13	1.47	1.71	1.56	1.68	1.51
Corn	2.52	2.24	3.13	1.63	1.97	2.12	1.79	2.83	3.25	4.06
Millet	0.19	0.90	1.27	0.84	0.93	0.82	0.79	0.85	1.39	1.19
Buckwheat	0.45	0.60	0.68	0.57	0.59	0.69	0.54	0.54	0.82	0.75
Rice	3.49	2.82	2.34	3.04	2.74	3.49	3.49	3.74	3.17	3.76
Peas and Pulses	1.16	1.29	1.46	1.12	1.07	1.42	1.79	1.59	1.48	1.62
Sunflowers	0.99	0.77	0.79	0.70	0.74	0.90	0.78	0.98	1.00	1.02
Soybeans	0.88	0.84	0.88	0.78	0.76	0.81	0.84	0.89	0.98	NA
Rapeseed	NA	0.64	0.62	0.63	0.65	0.66	0.68	0.72	0.98	NA
Sugar beets	17.8	15.8	14.8	13.4	16.9	18.8	19.9	21.9	22.7	27.6
Potato	8.8	10.5	11.1	9.7	9.7	10.4	10.9	10.3	11.6	11.5
Vegetables	13.8	14.0	14.1	13.4	14.3	14.5	15.5	15.2	16.9	1.69

Source: State Statistical Committee of the Russian Federation

Wheat

Wheat production in 2004 increased by 11.2 million metric tons (mmt) due to high yields of winter wheat in the southern part of the country. On-farm stocks of seeds are higher this year, but the quality has not changed and the 2005 crop will again depend, first of all, on weather. Data on the share of saved seeds in the total stock of available seeds is not available and although some regions report improvements in the quality and condition of seeds, most of the 6.3 – 6.4 mmt demand for seeds will be met by farmer's "saved" seeds. Imports of wheat and meslin planting seeds for spring planting increased sharply (mostly from Kazakhstan) after the low 2003 crop. In January-November 2004, Russia imported 49,648 metric tons of wheat seeds, including 48,985 metric tons from Kazakhstan, 284 metric tons from Germany, 233 metric tons from Lithuania, and 113 metric tons from Poland.

Chart 1. Imports of Wheat and Meslin Planting Seeds by Months, Metric Tons



Barley

The 2004 barley crop decreased by 768,000 metric tons, or four percent, to 17.2 mmt. The demand for barley seeds is estimated at 2.75 mmt a year and despite decreased production, the supply of "saved" seeds will be enough for the production of feed barley, which constitutes the bigger portion of the crop. Increasing production of beer and growing domestic production of malt raised demand for good quality malting barley seeds. However, the high Euro/Ruble exchange rate made direct imports of seeds from France more expensive than a year ago, and importers switched to less expensive seeds from other countries. Domestic research and breeding of malting barley seeds is improving and given the high value of the Euro, imports of barley seeds in 2005 are not expected to exceed 3,000 metric tons.

Table 3. Imports of Barley Planting Seeds (HS Number 1003 00 10), Calendar Years 2000-2004, Metric Tons

		2000	2001	2002	2003	Jan-Nov 2004
	--The World--	1 758.7	96.7	282.1	3 131.7	1 870.4
1	France	39.7	0.0	93.0	2 127.5	0.0
2	Germany	59.0	62.2	183.5	344.0	149.9
3	Lithuania	0.0	0.0	0.0	265.2	300.0
4	Poland	0.0	0.0	0.0	245.0	589.0
5	Denmark	0.0	0.0	0.0	58.0	0.0
6	Other European Union	0.0	0.0	0.0	57.3	0.0
7	Austria	0.0	0.0	0.0	34.7	28.1
8	Ukraine	0.8	14.0	0.0	0.0	444.3
9	Estonia	0.0	0.0	0.0	0.0	358.9

10	Kazakhstan	1 634.3	0.0	0.0	0.0	0.0
11	United Kingdom	0.0	0.0	0.0	0.0	0.3
	Other not mentioned	25.0	25.0	5.6	0.0	0.0

Note: ranked by quantity in CY 2003
Source: State Customs Committee of the Russian Federation

Rye and Oats

Rye production decreased by 31 percent and oats production decreased by four percent in 2004. Rye is the second most important food crop in the country and the significantly smaller crop means a larger percentage of it will be "saved" for planting. However, these saved seeds will meet total demand of approximately 750,000 metric tons. According to official information from Tatarstan Republic, the main rye producer, a shortage of good quality seeds may result in a lower crop next year and the use of grain from the 2004 crop may decrease both yields of winter rye and the quality of the grain. Production of oats was better and the demand for seeds will easily be met by "saved" seeds. Significant improvements in the quality of rye and oats seeds are not foreseen and these seeds are not a priority for domestic seed breeding laboratories. Post does not forecast any imports of seeds of rye and oats in 2005.

Corn

Corn for grain production has been increasing from 0.85 mmt in 2001 to 3.46 mmt in 2004, with steadily increasing yields from 1.8 tons per hectare in 2001 to more than four tons per hectare in 2004. Weather played a significant role in achieving high yields in 2004, but the role of improved seeds was also significant. Given the increasing demand for corn, the demand for planting seeds is forecast to increase from 250,000 metric tons in 2004 to around 300,000 metric tons in 2005. The major share of this demand will be met by local hybrids developed by seed breeding institutes in southern Russia, but imports of corn seeds are forecast to increase in 2005 to 8,000 metric tons.

Table 4. Corn Seed Imports, by Type, CY 1997-2002, Jan. – Nov. 2003, Metric Tons.

		2001	2002	2003	Jan-Nov 2004
	100510 SEED NOT SWEET CORN	8 805	5 153	5 465	6 489
10051015	Simple hybrids	3 807	3 192	3 617	4 287
10051013	Three cross hybrids	1 104	214	861	304
10051011	Double hybrids and top cross hybrids	1 481	734	473	936
10051019	Other	1 567	819	274	736
10051090	Other	846	194	239	226

Source: State Customs Committee of the Russian Federation

Table 5. Corn Seed Imports (HS Number 1005 10), by Country, CY 1997-2002, and Jan.-Nov. 2003, Metric Tons

		2001	2002	2003	Jan-Nov 2004
	--The World--	8 805	5 153	5 464	6 489
1	Ukraine	1 205	902	1 595	789
2	Yugoslavia	2 665	1 209	1 331	2 018
3	Hungary	387	753	987	1 340
4	France	353	432	673	295
5	Moldova	2 398	891	387	460
6	Kazakhstan	1 584	858	177	341
7	Romania	0	40	137	252
8	United States	128	1	94	495
9	Austria	0	1	25	112
10	China	0	28	19	0
11	Slovakia	0	0	18	99
12	Croatia	5	0	13	10
13	Germany	0	0	5	46
14	Other European Union	9	39	0	0
15	Canada	0	0	0	80
16	South Africa	0	0	0	150
	Other	70	0	0	0

Source: State Customs Committee of the Russian Federation

Seeds of other grains

Imports of other seeds of grains were low and not included in customs data. However, the creation of the company “Kuban-rice” in Krasnodar (joint project of Razgylay-Ukros and the administration of Krasnodar Kray) could mean increased investments in the improvement of domestic seeds and technologies for rice production.

Sunflower seeds

Sunflowerseed production has been growing during the last four years due in part to better seeds. Yields grew from 0.7 tons per hectare in 1999 to 1.02 tons per hectare in 2004 and on some farms in the southern part of the country, yields of commercial sunflowerseeds exceeded 1.5 metric tons per hectare. Total demand for better quality seeds is growing along with the demand for sunflowerseeds to fill expanding domestic crushing capacity. Domestic breeders are working on improvements to native varieties (especially to shorten the vegetation period and improve resistance to diseases) in an effort to increase production in more northern parts of the country. However, the majority of producers’ demand for good quality, high yielding seeds are still filled by imports. Imports increased to 3,306 metric tons in 2004, a 32 percent increase from the previous year, and imports from the U.S. constituted over 25 percent of total imports. To some extent, imports from the U.S. versus imports from the EU were stimulated by a favorable exchange rate, but mutual research conducted by Russian and American breeders in this field was also a factor.

Table 6. Imports of Planting Seeds of Sunflowerseeds (HS Number 1206 00 10), Metric Tons

		CY 2000	CY 2001	CY 2002	CY 2003	Jan-Nov 2004
	--The World--	1 980.5	1 081.6	2 164.1	2 507	3 306
1	Moldova	663.9	579.6	910.0	539	679
2	Turkey	104.0	0.1	172.0	566	805
3	United States	0.0	55.0	206.1	382	837
4	Spain	77.5	121.5	33.6	333	108
5	France	405.2	148.4	322.0	302	206
6	Yugoslavia	113.0	93.2	93.3	185	196
7	Romania	0.0	0.0	54.0	96	104
8	Hungary	31.5	42.5	230.9	58	142
9	Other European Union	0.0	34.9	64.1	39	16
10	Ukraine	584.2	2.5	59.0	0	120
11	Germany	0	0	0	0	70
	Other	1.2	3.8	19.2	6	23

Source: State Customs Committee of the Russian Federation

Seeds of Soybeans and Other Oilseeds

According to experts, Russia increased production of soybeans in the European part of the country in 2004 by over 500,000 metric tons. Imports of seeds of soybeans increased in 2003, but from only two countries, the U.S. and China. All imported seeds of soybeans are assumed to be conventional varieties, as planting of GMO seeds is not allowed. Demand for soybeans is large and growing along with Russia's intent to increase production of poultry, and, starting this year, swine. However, a significant increase in seed imports is not forecast due to official restrictions on GMO seeds.

Currently, some administrations allocate budgetary support for the development of regional varieties of soybeans. This is likely the reason why one of the biggest milk processors in Tatarstan decided to start production of soybeans even though they have never been a traditional product in Tatarstan. In the spring of 2004, the company purchased super-elite and elite seeds of soybeans to grow on 1,000 hectares in 17 enterprises in six regions. The next step is to develop primary seed production together with the Agricultural Institute of Tatarstan and the association *Elite Seeds of Tatarstan.* After that, they plan to increase the area planted to soybeans in the Republic to 20-25,000 hectares to produce commercial soybeans for soy protein and diet food products. However, it is unlikely that this approach will lead to increased commercial production of soybeans at the national level.

Table 7. Imports of Seeds of Soybeans (HS Number 1201 00 10), Metric Tons, Calendar Years

		2000	2001	2002	2003	Jan-Nov 04
	--The World--	14		5.5	217	161
1	China	14		5.5	97	161
2	United States	0		0	120	0

Source: State Customs Committee of the Russian Federation

Other oilseeds crops are produced from domestic varieties and any imports are generally used by research and breeding institutes for improvement of traditional domestic varieties on a temporary bases.

Vegetable seeds

Production of vegetables continues to increase, mostly on private plots and specialized farms. The list of vegetables produced in Russia has expanded significantly and demand for a wider range of varieties and types is increasing. [Sources claim that a significant portion of vegetable seeds may be imported by private companies under certificates of conformity that are given to a certain company for a certain period from a list of vegetable products or seeds and may not be captured in official data.] Official imports of vegetable seeds more than doubled in 2004 to reach 1,050 metric tons mainly from the Netherlands, France, and Germany.

Table 8. Imports of Seeds of Vegetables, except red beet and peas (HS Number 1209 91), Metric Tons, Calendar Years

Rank	Country	2001	2002	2003	Jan-Nov 2004
	--The World--	443	476	442	1 050
1	Netherlands	67	74	135	125
2	France	83	107	71	111
3	Germany	45	67	40	27
4	Poland	28	16	32	21
5	Italy	10	20	32	36
6	Czech Republic	23	12	29	9
7	Uzbekistan	41	16	20	33
8	Moldova	2	4	14	42
9	Denmark	38	13	10	13
10	Hungary	0	18	10	2
11	United States	9	27	9	44
12	Ukraine	1	20	8	526
13	Tajikistan	8	5	6	10
14	New Zealand	35	35	5	1
15	India	0	0	5	3
	Other	52	44	16	45

Source: State Customs Committee of the Russian Federation

Seeds of Horticultural Crops

Trade in seeds of horticultural crops depends on domestic demand, but as with trade in vegetable seeds, official customs data does not reflect the genuine situation. The market of these seeds is expanding along with growing domestic income.

Sugar Beet Seeds

Imports of high yield seeds increased and sugar beet yields more than doubled in 2004. The growth in yields was stable and the use of imported seeds largely mitigated weather risks. Producers included as part of vertically integrated chains with sugar refineries were able to fully capture the benefits of imported seeds such as the high level of germination and higher yields. However, this intensive integrated production of sugar beets is limited to the southern part of the country. Farmers who are unable to deliver sugar beets directly from the fields to processors generally do not use imported seeds due to the expense and they tend to incur losses during storage. According to official information from Krasnodar Kray, by December 15, 2004, losses during storage exceeded 160,000 metric tons (approximately three to four percent of the crop). Along with the further development of vertical integration, imported seeds with guaranteed higher yields will become more attractive than domestic seeds, but in regions where vertical integration is less developed, demand for domestic varieties that are cheaper and better suited to local storage conditions will prevail. According to unofficial data, the average price of domestic seeds varied from 300 Rubles per kg to 400 Rubles per kg, while the price of imported seeds is almost ten times higher.

Domestic demand for sugar beet seeds is estimated at 8,500 – 9,000 metric tons and the share of imported seeds increased from approximately ten percent in 2003 to sixteen percent in 2004. In January – November 2004, half of the imported 1,487 metric tons of seeds came from Germany and France. In 2005, imports of seeds will continue to increase along with the development of vertical integration, but at slower pace, given that the area for intensive production is limited.

Table 9. Imports of Sugar Beet Seeds (HS Number 1209 10), Calendar Years, Metric Tons

	1997	1998	1999	2000	2001	2002	2003	Jan-Nov 2004
--The World--	1 054	391	320	372	430	528	863	1 487
Germany	374	37	59	35	113	128	271	467
Belgium	18	38	38	54	32	111	158	132
Denmark	54	31	24	26	65	116	152	92
France	125	64	71	18	96	102	113	255
Kyrgyzstan	218	140	97	25	15	39	77	57
Switzerland						4	47	0
Yugoslavia	1	1	0	0	5	22	29	11
European Union	0	0	0	0	8	0	16	163
Lithuania	0	0	5	0	0	0	0	0
Italy	161	0	0	21	0	0	0	110
Ukraine	15	29	8	133	0	0	0	191
Other	88	51	17	61	96	6	0	9

Source: State Customs Committee of the Russian Federation

Seed Potatoes

Russia harvested 35.6 mmt of potatoes in 2004, two percent less than last year, but nine percent more than in 2003. During the last two years, yields were higher than the average during the 1990s. The majority of the supply is still produced on small plots, but production on commercial-size farms is also growing. Most of the seed potatoes are saved from the previous year and the quality of these seeds deteriorates from year to year. However, processing companies (potato chips, potato for French fries, etc.) are contracting with farms to ensure a steady supply of needed raw materials and providing a better quality seed stock.

Imports of seed potatoes increased in 2003, but then dropped again in 2004. Post forecasts that imports of seed potatoes will return to 9,000 metric tons along with an expected increase in the production of potatoes for processing. European countries will remain the main suppliers of seed potatoes. However, officially reported imports of seeds potatoes may well be distorted by recent phytosanitary issues with the EU.

Table 10. Imports of Seeds of Potato (HS Number 0701 10), Calendar Years, Metric Tons, by Country

	2000	2001	2002	2003	Jan-Nov 2004
--The World--	121 813	17 268	6 274	9 997	5 790
Netherlands	89 060	3 493	3 141	5 499	3 250
Germany	1 046	2 045	1 295	2 600	1 446
Finland	761	660	532	910	454
Sweden	0	9	55	500	0
Poland	29 147	60	530	355	159
United Kingdom	183	9	680	316	281
Lithuania	233	315	00	129	100
Austria	0	0	0	60	0
Denmark	0	0	0	40	65
China	53	113	0	34	0
Azerbaijan	0	0	41	0	0
France	39	0	0	0	35
Other	1 291	10 565	0	0	0

Source: State Customs Committee of the Russian Federation

Fodder Grass Seeds

Demand for fodder grass seeds is growing slowly. Russia imported over 2,900 metric tons of fodder grass seeds in CY 2003 and almost the same amount during the period January-November 2004. Imports in CY 2005 are forecast to exceed 3,000 metric tons. Planting seeds of fodder grasses are imported mostly from Germany, Netherlands, Denmark, and Canada. Denmark was the main supplier in 2003 with almost 1,570 metric tons, including 173 tons of fescue seeds, 106 tons of rye grass seeds, 71 tons of seeds of Kentucky blue grass and 1,219 tons of seeds of other grass plants. Imports of grass seeds from the U.S. were small, only three tons.

Trade

Table 11 shows the structure and dynamics of seeds imports in 2000 – 2004.

Table 11. Imports of Planting Seeds, Calendar Years, Metric Tons

		2000	2001	2002	2003	Jan-Nov 2004
07011000	Potato, for sowing	121 813	17 268	6 274	9 997	5 790
07131010	Peas, for sowing	1 696	338	244	232	461
07031011	Onion, Sets	4 289	2 753	4 726	7 162	7 465
07133310	Beans, for sowing	668	177	11	13	10
	Subtotal	128 466	20 537	11 256	17 404	13 726
10019091	Wheat and meslin seed	1 577 471	218 803	18 005	70 219	49 648
10030010	Barley, for sowing	1 759	97	282	3 132	1 870
100510	Corn for sowing, not sweet corn	29 027	8 805	5 153	5 465	6 489
10061010	Rice, for sowing	0	0	0	0	0
10070010	Sorghum, hybrids for sowing	1	10	12	7	0
	Subtotal	1 608 258	227 714	23 453	78 823	58 007
12010010	Soybeans, for sowing	14	0	6	216	161
12021010	Peanuts, for sowing	0	0	0	0	0
12040010	Flax, for sowing	1 647	0	0	17	0
12050010	Rape or colza seeds, for sowing	176	52	14	53	49
12060010	Sunflowerseeds, for sowing	1 980	1 082	2 164	2 507	3 306
	Subtotal	3 818	1 134	2 184	2 793	3 516
1209	Seed, fruits and spores, for sowing	4 500	2 861	3 974	4 461	5 908
	including:					
120910	Sugar beet seed, for sowing	372	430	528	863	1 487
120921	Alfalfa, Lucerne, seed	2 171	146	161	0	29
120922	Clover seed	53	113	118	108	96
120923	Fescue seed	111	148	159	323	385
120924	Kentucky blue grass	55	71	155	171	151
120925	Rye grass seed	167	296	236	95	194
120926	Timothy grass seed	4	9	2	1	3
120929	Seeds of other grass plants	596	1 396	1 859	2 211	1 987
	Total fodder grasses	3157	2179	2690	2 909	2 845
120930	Herbaceous plants, seeds	21	31	44	45	37
120991	Vegetable seeds, except red beet and peas	976	443	476	442	1 050

120999	Seeds of other Herbaceous plants and forest trees 1209	345	209	235	202	491

Source: State Customs Committee of the Russian Federation

Tariffs

Table 11 provides information on current import tariffs for planting seeds. There have been no changes over the last year. Trade in seeds within the members of the Customs Union (Russia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan) remains duty free.

Table 12. Import Tariffs for Planting Seeds

HS number		Import
07011000	Potato, for sowing	5%
07131010	Peas, for sowing	15%
07031011	Onion, Sets	15%
07133310	Beans, for sowing	15%
10019091	Wheat and meslin seed	5%
10030010	Barley, for sowing	5%
100510	Corn for sowing, not sweet corn	5%
10061010	Rice, for sowing	10%, not less than 0.03 euros per 1 kg
10070010	Sorghum, hybrids for sowing	5%
12010010	Soybeans, for sowing	5%
12021010	Peanuts, for sowing	5%
12040010	Flax, for sowing	5%
12050010	Rape or colza seeds, for sowing	5%
12060010	Sunflowerseeds, for sowing	5%
1209	Seed, fruits and spores, for sowing	5%

Source: State Customs Committee of the Russian Federation

Policy

The reorganization of the Ministry of Agriculture led to a period of uncertainty as to which organization would be handling the supervision of seeds testing and registration. Only at the end of 2004 did it become clear that most of the functions of the former Seed Inspection Service will be given to the Federal Service for Veterinary and Phytosanitary Surveillance.

Patent Rights

According to seed breeders, farmers have increased the use of patented seed varieties and hybrids that allow them to increase yields, in some cases by 0.5-0.6 tons per hectare. However, despite existing patent laws, farmers reportedly do not usually pay the required royalties and the selections centers do not have enough money to pay for legal action to recoup the losses.

Local grain seeds subsidies

To supply the areas that do not have access to saved seeds often involves lengthy transportation times, during which the quality of the seeds may deteriorate and the seeds may become infected. For example, in 2004 in Irkutsk Oblast, there were no shipments of planting seeds free from infection according to the local plant protection station. The most frequently observed disease was “root rot,” which infected 32.7 percent of all seeds. The necessity of treating the seeds with chemicals prior to planting is widely acknowledged and the oblast budget generally covers seventy percent of the expenses, according to an Agronews article of17.05.04).

Another example of local subsidies for elite seed breeding is from Primorskiy Kray, which allotted 51.6 million rubles for development of a regional breeding program. These funds will be distributed among 17 local feed farms with which the Kray administration will conclude contracts for the production of high yield seeds of grain, soybeans, and rice.